

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Richard A. Braun, et al.

Filing Date: January 16, 2004

Title: *System and Method for a Directory Secured User Account*

**MAIL STOP PATENT APPLICATION
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450**

Dear Sir:

Petition to Make Special Under 37 C.F.R. § 1.102(d)

Applicants submit this Petition under 37 C.F.R. § 1.102(d) to make this Application special.

Pre-Examination Search

The professional search firm Intellectual Property Concerns, Inc. has made a pre-examination search. The search included Class 707, Subclass 3; Class 709, Subclass 226; and Class 712, Subclasses 30 and 31. Foreign patents and literature were also searched.

The search uncovered the following references:

1. U.S. Patent No. 6,009,455
Inventors: John F. Doyle
Title: *Distributed Computation Utilizing Idle Networked Computers*
2. U.S. Patent No. 6,418,462 B1
Inventors: Yongyong Xu
Title: *Global Sideband Service Distributed Computing Method*
3. U.S. Patent No. 6,112,225
Inventors: Reiner Kraft, Qi Lu, and Marat Wisebond
Title: *Task Distribution Processing System and the Method for Subscribing Computers to Perform Computing Tasks during Idle Time*

4. U.S. Patent Application Publication No. US2002/0007394 A1
Inventors: Phillip Andre Bertolus and Timothy Grant Lewis
Title: *Retrieving and Processing Stored Information Using a Distributed Network of Remote Computers*
5. U.S. Patent Application Publication No. US 2002/0091752 A1
Inventors: Bradley M. Firlie
Title: *Distributed Computing*
6. U.S. Reissued Patent No. US RE37,811 E
Inventors: Gerard Sitbon, Francois Urbain and Therese Saliba
Title: *Distributed Application Load Distribution Aid Tool*

Detailed Discussion of the References

U.S. Patent No. 6,009,455 discloses a system and method to utilize the otherwise unproductive minutes and hours when a networked client computer is not in use by a local human operator. The method and system allow multiple partitioned computations to be queued for distribution to any number of client computers when the clients indicate their availability. Availability may be determined by the same criteria used to activate screen-saver programs, i.e., a predetermined time without any keyboard or mouse input. Application programs are designed to accept a common calling sequence. An application-independent master control program coordinates the distribution of computation segments, the combination of partial results, and the formatting of the final result. An application-independent client control program reports availability of client computers, downloads application program files, invokes the application to compute partial results for a range of computation segments, and uploads the partial results to the master computer. One class of distributed computation supported is finding the minimum or maximum value of a calculated target cell in a spreadsheet, based on a number of input cells taking values within a specified range. Distributed computations can include searches of databases or searches of intranets or the Internet.

U.S. Patent No. 6,418,462 B1 discloses a method of distributed computing, sideband computing, that is global, scalable and can utilize many idle CPU resources worldwide. Sideband is defined as when a user connects to some (normal) network services, a separate

communication channel is opened, through which a server distributes its tasks to all the clients and collects the results later. By this method, any network server which has a lot of clients can compute very large parallel computing problems by dividing it into small individual parts and have them calculated by its clients. With little cost, the network server can act as a supercomputer. The sideband computing method can be extended to other distributed services such as distributed testing or distributed searching. Any computer, with the willingness to accept those tasks from outside, to be exposed to the public and to work for anyone on the Internet, can earn credits (at idle times, normally). And network servers can contact those clients if they need more computing power.

U.S. Patent No. 6,112,225 discloses that a computer executable “aggregate” task is processed by dividing it into subtasks and distributing the subtasks “on demand” to remotely located subscribing computers via a computer network. The aggregate task originates at a coordinating computer, coupled to one or more peripheral computers by appropriate communications links. The coordinating computer divides the aggregate task into multiple independent subtasks. Each peripheral computer begins to “subscribe” to the coordinating computer’s aggregate task by obtaining an “idle time activation program” from the coordinating computer, and then installing the program locally. The idle time activation program which may include a screen saver, activates automatically when the subscribing computer is inactive. Continuing the subscription process, each peripheral computer requests a subtask from the coordinating computer. In response, the coordinating computer distributes different subtasks among the subscribing computers, completing the subscription process. The subscribing computers automatically work on their respective subtasks whenever they are idle, as directed by the local idle time activation program. When a subscribing computer completes its subtask, it transmits results back to the coordinating computer. When results of all subtasks have been received from subscribing computers, the coordinating computer compiles and stores these results, concluding the aggregate task.

U.S. Patent Application Publication No. US 2002/0007394 A1 discloses a system that retrieves and processes information stored on computers connected by a communications

network. A central computer receives notification from a remote computer that the computer is available to receive data. In response to that notification, the central computer sends address data to the remote computer. To utilize the available network resources with maximum efficiency, the central computer optimizes performance of the distributed system by allocating address data to the remote computer based on at least one characteristic of the remote computer, such as a measure of network connectivity and/or on a performance characteristic of that remote computer. This allocation may take place in accordance with the relative importance of the data for indexing purposes. The remote computer uses a communication interface connected to the Internet to retrieve the information stored at the locations specified by the address data, and stores that information. The remote computer then processes the retrieved information to generate processed data, and stores the processed data. Finally, the remote computer sends the processed data to the central computer.

Just as the quality of information stored at different locations differs widely, so too do the characteristics and attributes of the remote computers which participate in most distributed computing systems. In particular, the quality (in terms of speed and power) and the network connectivity of the remote computers (relative to the information to be accessed and indexed) differ widely. Each computer has a certain amount in common, for example they generally all have a microprocessor, some form of memory, some form of input/output device, a network interface, and a storage device. Important areas in which they differ, however, include processor speed, storage capacity, reliability, average amount of idle time, time spent connected to a network, their proximity in the network to information that is to be indexed, and the speed of their network connection. Each of these points of difference can affect the contribution a computer can make to a distributed computing system. Accordingly, the present invention optimizes search engine performance by utilizing the unused processing capacity of networked remote computers to retrieve and process stored information on the Internet, and by doing so in a way which seeks to match the tasks to be processed with the most suitable computers available at the time, without incurring undesirably high communication costs.

U.S. Patent Application Publication No. US 2002/0091752 A1 discloses distributed processing methods and systems that can coordinate and administer the execution of large-scale processor intensive computer models and data analysis used in problem solving. A server initiates a task to an administration module that can decompose the task into parts, or subtasks. The server can assign the subtasks to remote computers, or helpers, and collect the results of those subtasks from the helpers. The helpers can obtain the necessary processing code from the administration module in the form of dynamically linked libraries (DLLs). Data to be processed can be obtained from local or remote data sources.

Distributed computing is gaining popularity as a technique for harnessing idle computing power available through large networks such as the Internet. One such example is the Search for Extraterrestrial Intelligence (“SETI”), a project in which millions of computers connected to the Internet process astronomical data in an effort to identify signs of extraterrestrial life. However, existing approaches are typically limited to a specific problem for which client-side software may be downloaded to a number of participating computers, or to a particular type of problem for which processing tasks for clients are known in advance, so that participating computers may be pre-programmed to respond to specific processing requests.

U.S. Reissued Patent No. US RE37,811 E discloses an invention relating to a toolkit for balancing the load of an application distributed among several machines belonging to a distributed data processing system in a local area network. A tool at the service of a distributed application running on machines of a distributed data processing system running in a local area network, intended for balancing the load on each of the machines of the system, includes a master daemon and a plurality of agent demons. The master and each of the agents calculate the load of the machine on which they are running. The master collects the load data of each of the agents at a first sampling interval and sends that collected load data to all of the agents. At the request of the distributed application, the local agent closest to the application indicates to the application which machine has the lightest load. The application then makes the decision to request the machine with the lightest load to execute

the services the application requires. As necessary, the tool selects a master from the agents, thereby ensuring the existence and uniqueness of a master at all times, regardless of failure affecting one or more machines in the data processing system.

Applicants' Claims are Patentable Over the References

Applicants' claims recite limitations that are not disclosed, taught, or suggested in the above references, whether the references are considered individually or in any combination. As an example, none of the references discloses, teaches, or suggests "identifying an available network resource, the network resource coupled to a network; providing an access token to the available network resource, the access token operable to allow an application of the available network resource to access a portion of the network; [and] tracking the status of the access token," as recited in independent Claim 1. As another example, none of the references discloses, teaches, or suggests "an access token, the access token operable to provide access to at least a portion of a network; [and] an administrator, the administrator operable to identify at least one available network resource, provide the access token to the at least one available network resource, and store a status corresponding to the access token," as recited in independent Claim 26. Accordingly, for at least this reason, Applicants' claims are patentable over the references discussed above.

Conclusion

Under 37 C.F.R. § 1.102(d), Applicants respectfully request that this Application be granted special status.

Enclosed is a check in the amount of \$130.00 for this Petition. The Commissioner is hereby authorized to charge any fee and credit any overpayment to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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Date: January 16, 2004

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